MasterLink:
Introducing the Concept

Presented to

Maintenance & Diagnostics, LLC

Exhibit 1

by Garry L. Fenimore - President, MasterLink Corporation

MasterLink Deliverables to the Electric Power Industry

- *Facilities **A**utomation **S**implification **T**echnology (**FAST**): A Paperless Workorder Management System with Industry-Specific Capabilities*
- *Expert Problem Domain Analysis*
- *Mobile Workforce Management Innovation*

FAST Client-Server Software, Automated Functions Include:

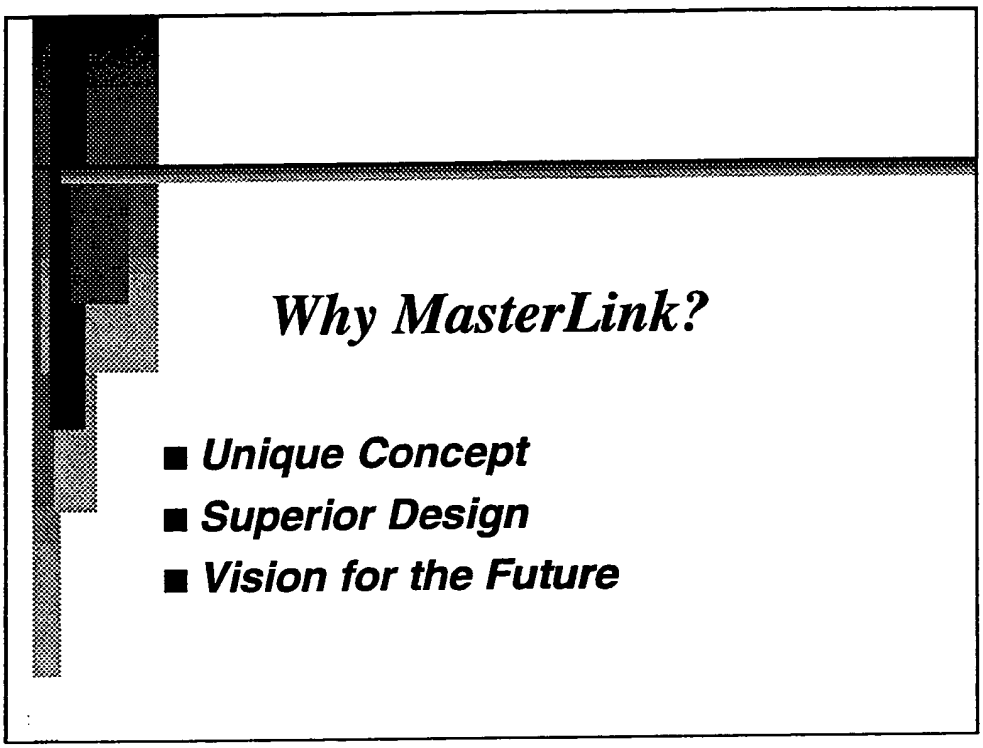
- *System Implementation*
- *Job Creation/Planning*
- *Job Scheduling*
- *Paperless Workorder Dispatching/Management*
- *Field Data Acquisition*
- *Policy Management*
- *Management Reporting*
- *Wireless Control of Mobile Workers*

Electric Power Industry Domain Analysis Activities:

- *Definition of Scope*
- *Formulate Work System Charter Statement*
- *Develop Use-Cases (scripting)*
- *Create Domain Dictionary*
- *Design System Construction Parameters*
- *Map Legacy Data*
- *Adapt Core **FAST** Functionality to the Electric Power Industry*

Electric Power Industry - Work Process Innovation

- *Benchmark Data - Internal & External*
- *Develop Optimal Skill Resource Utilization Factors*
- *Implement Intelligent Algorithms to Initiate Changes*
- *Investigate Outsourcing Opportunities*
- *Seek Out "Best of Class"* ***Models from Other Industries to Emulate in the Electric Power Industry***



I. The Purpose of Today's Presentation Is To:

A. Explain Why the MasterLink's Solid, Simple, and Foundational Design Concept is Unique

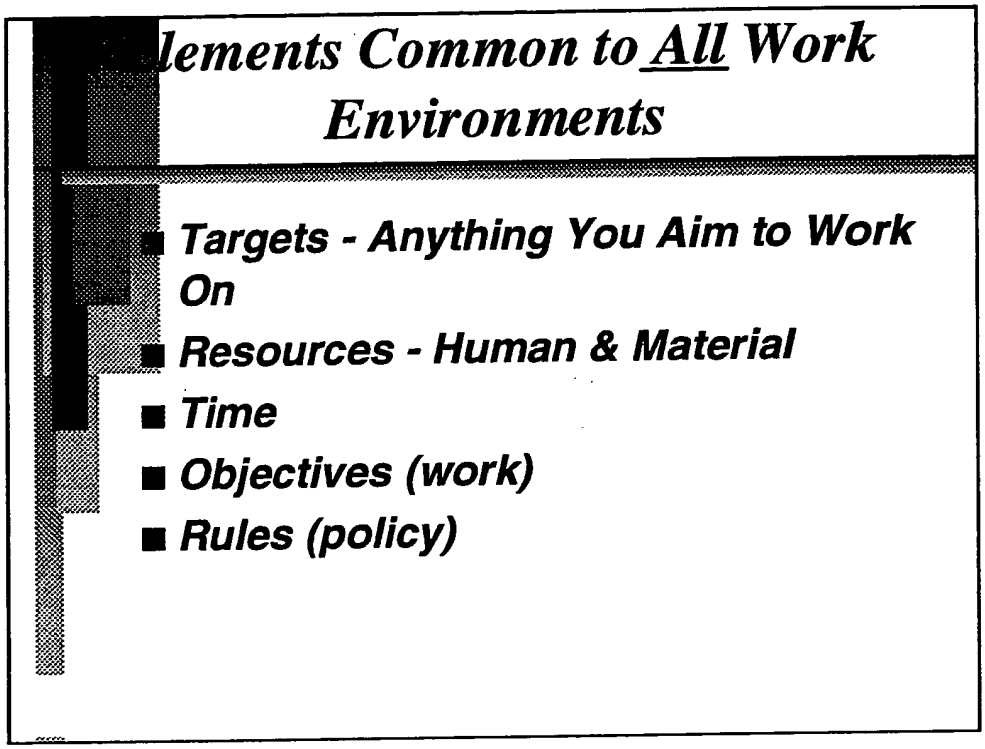
B. Demonstrate the Design Integrity

C. Share a Vision of the Future of Mobile Work Management

II. The Goals of Today's Presentation Are To:

A. Validate M&D's Belief in MasterLink Concept

B. Establish and Investigate the Basis for Forming a Long-Term Partnership



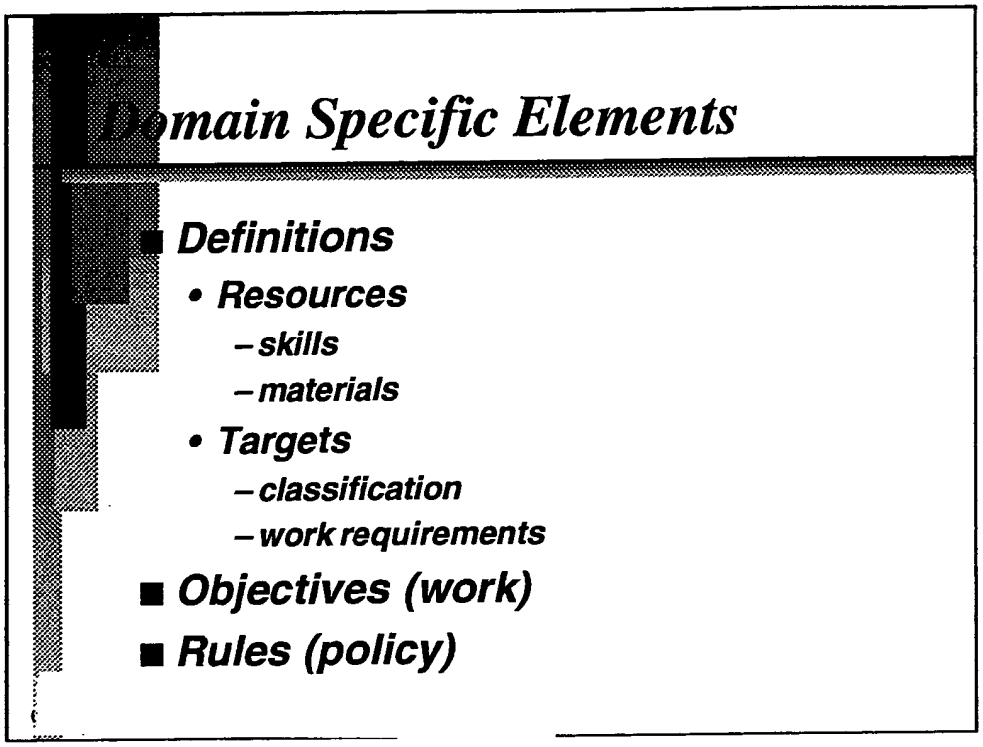
I. Targets are anything requiring action. May be a physical entity, or a process.

II. Resources are the people or material required to accomplish work.

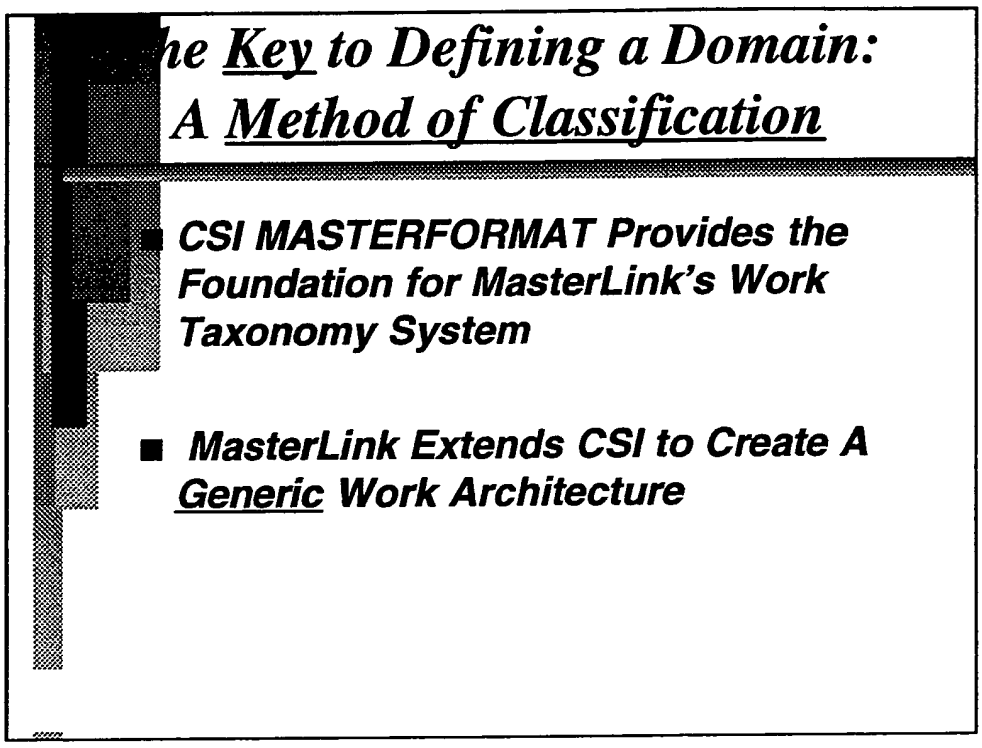
III. Work is the successful combination of resources, materials, and time.

IV. Policy is definite method of action, selected from alternatives, based on conditions and results. Policy controls the interactions of all facilities/equipment requiring work, corporate resources performing work, and the reporting measures required to monitor the results.

* Note, MasterLink defines a "facility" as more than a physical entity built to serve a particular purpose. A facility is any infrastructure, physical or logical, that enables enterprise activity.



As you can see, the only difference between the generic and specific is the definition of a particular domain. A domain is a sphere or field of action, interest, or knowledge.



I. What Is CSI MASTERFORMAT?

CSI MASTERFORMAT is a system of numbers and titles for organizing construction information into a regular, standard order or sequence. By establishing a master list of titles and numbers, MASTERFORMAT promotes standardization and thereby facilitates the retrieval of information and improves construction communication.

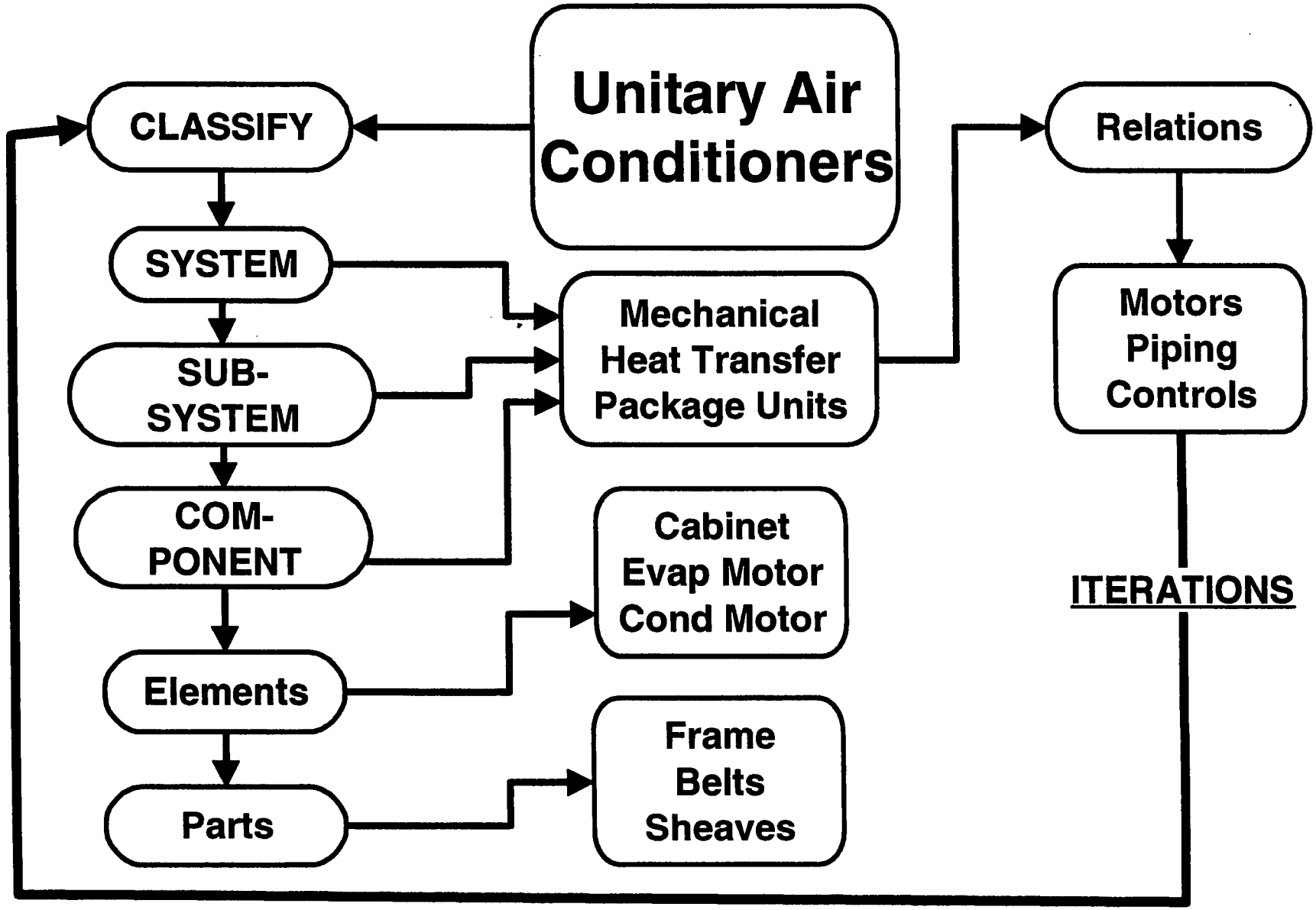
II. FAST Integrates MASTERFORMAT with MasterLink's Automated Work Taxonomy System, by:

- Starting with CSI's System/Machine Classification Method
- Adding Work Objectives
- Adding Skill/Material Requirements
- Formulating Base Time Requirements
- Creating Rules Templates

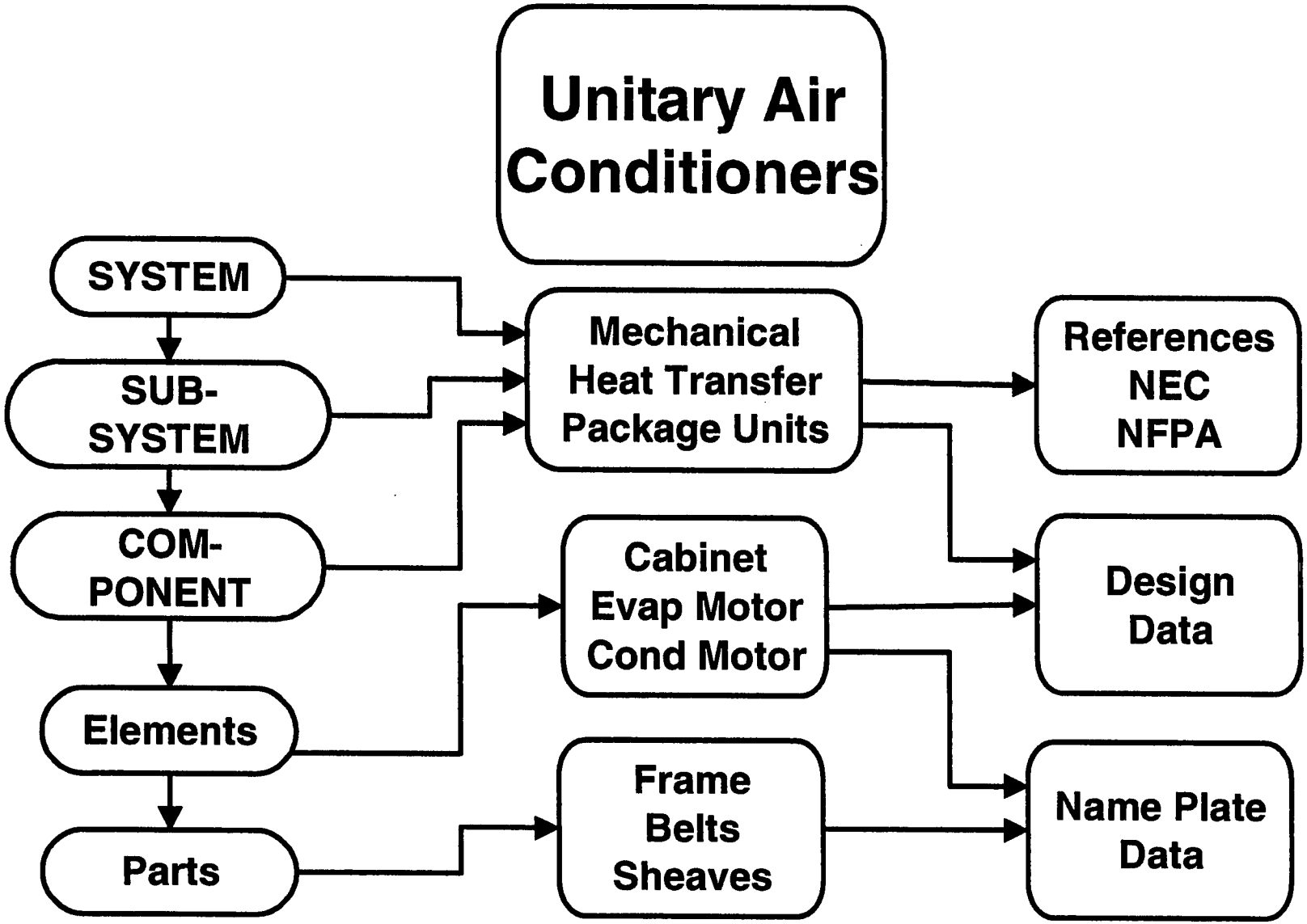
III. Show the Following Slides

- Work Target Definition
- Target Design Data Definitions
- Target Task Definitions

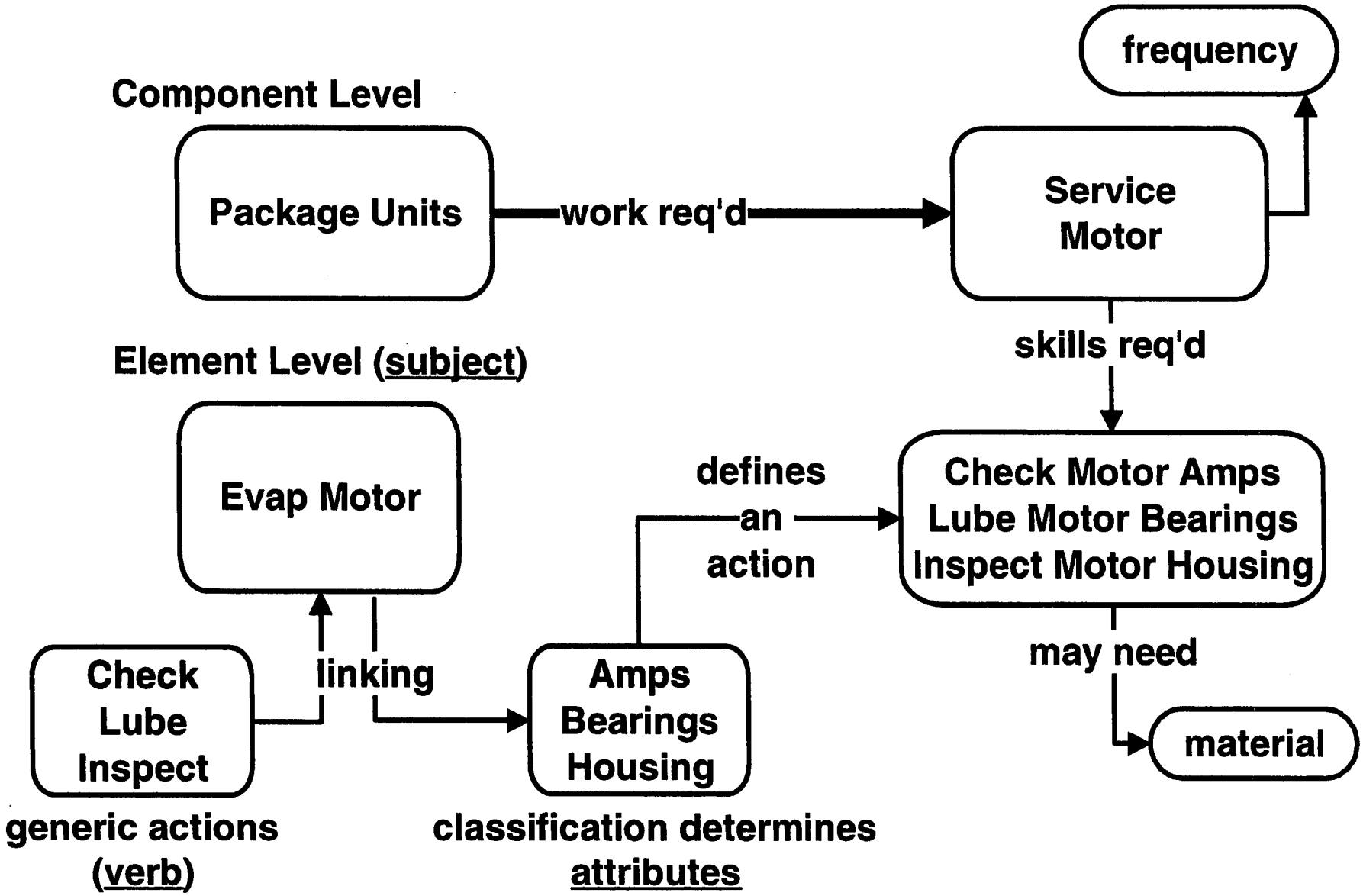
Work **Target** Definition



Target **Design Data** Definition



Target Task Definitions



BAST Implements Standardized Data Structures

- Reduce Implementation Costs
- Encourages Benchmarking
- Enables Customized Information Display
- Deliverable with Current Technologies
- Easily Extendible

I. No More Proprietary Systems!

II. Allows for True "Apples to Apples" Comparisons

III. Displays Information Based On the Resource Receiving It

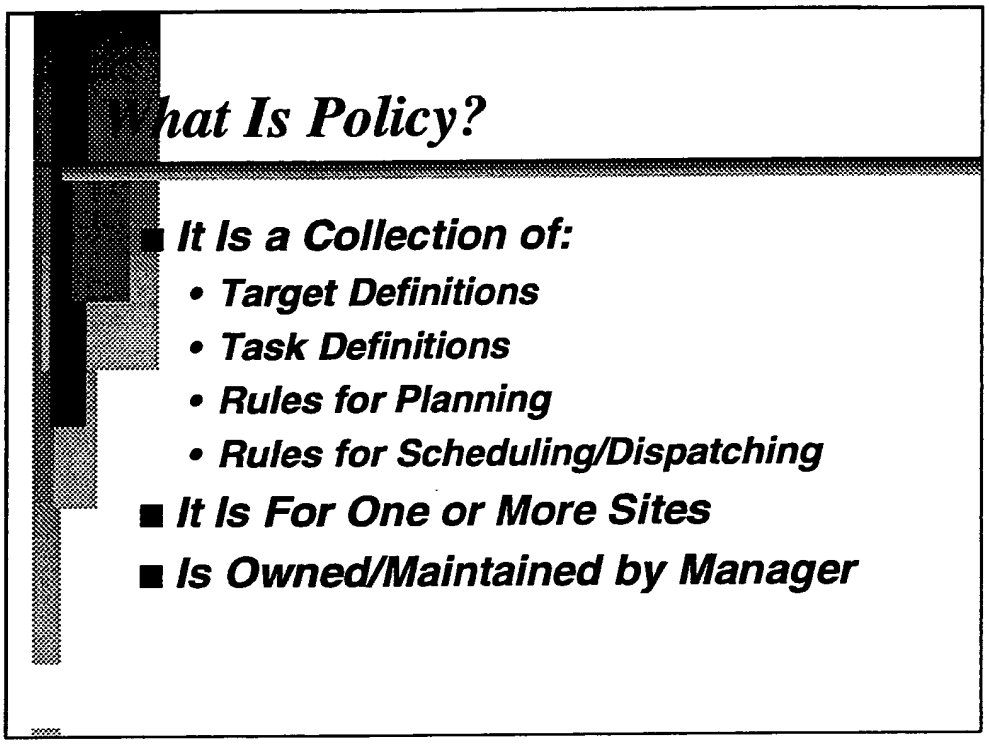
- an electrician sees electrical information
- a mechanic sees mechanical information
- a manager sees what he/she needs to make informed choices

IV. Because We Are Text-Based - We Can Do What We Say!

- we can work within existing rf bandwidth capabilities
- we can use off-the-shelf hand-held units to accomplish our goals

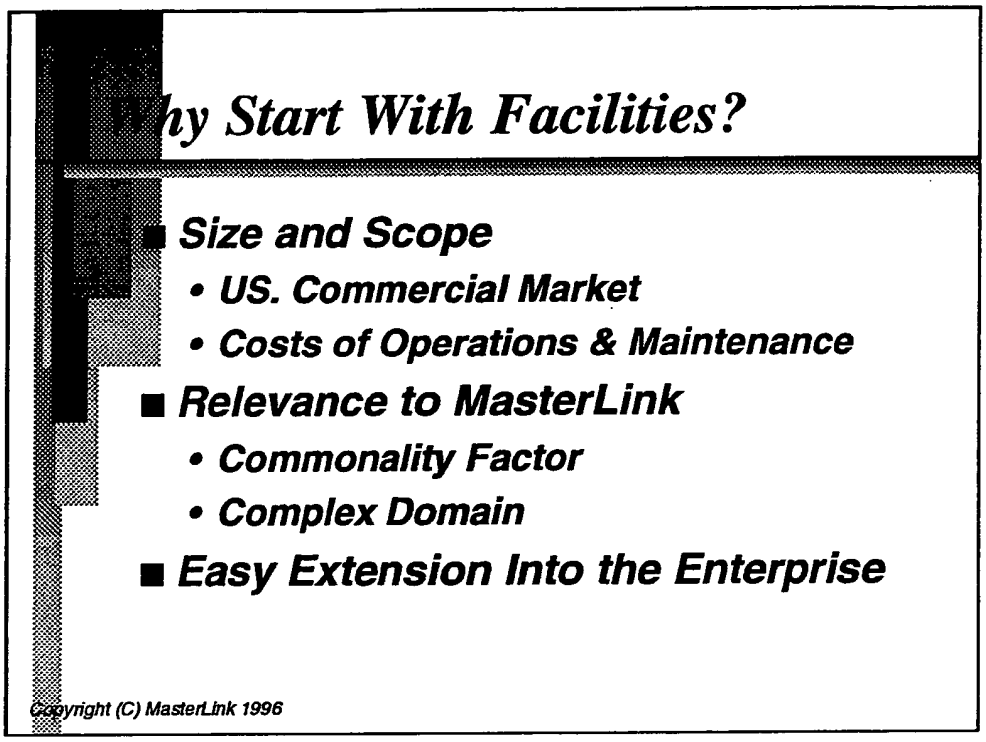
V. We Can Extend Our Core System Functionality Into Other Areas

- Energy Mgmt. - Security/Life Safety - Production
- Engineering - Purchasing - Accounting



Show the Following Slides

- Target Definition
- Task Definition
- Resource
- Job



I. What Is the Facilities Domain and Why is it Important? SIZE!

- Size 218,000 commercial buildings >50,000 s.f. = 40 billion s.f., not including military or manufacturing
- Owners/Operators spend at least $325 Billion dollars/year in operating and maintenance costs

II. Why is it Relevant to MasterLink? Horizontal Market Access !

- Facilities are common to all business
- Operation and management of physical facilities is complex
- Involves elements found in sophisticated manufacturing or service operations.
  - legacy systems
  - logistics
  - material management
  - labor management
  - customer service

R&D and MasterLink: The Same Goals

- Optimize Operation & Maintenance
- Develop Adaptive Strategies
- Focus on Mobile Workers
- Improve Management Skills
- Deliver Value-Adding Services
- Improve Our Knowledge Base for Our Customers Benefit

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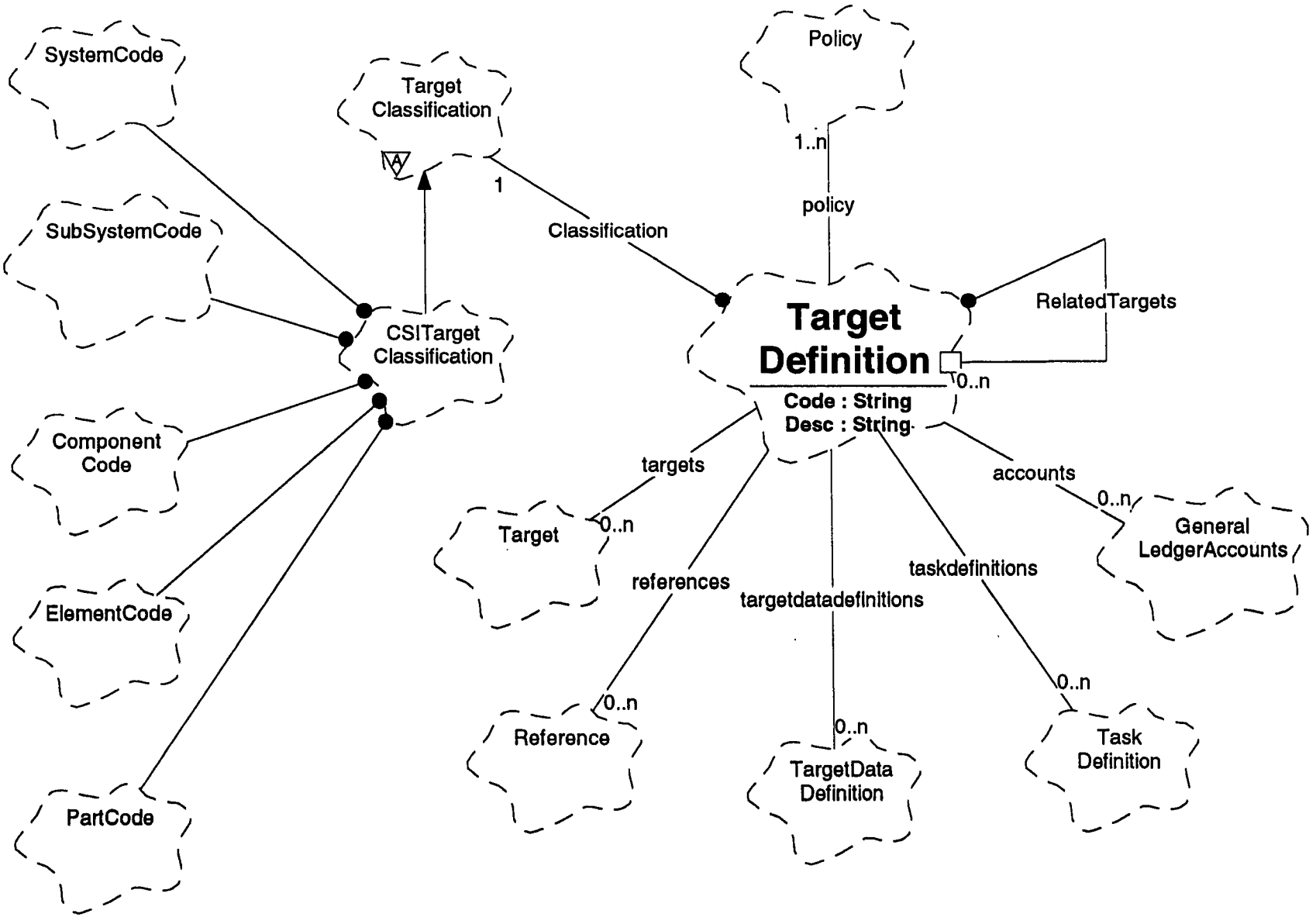
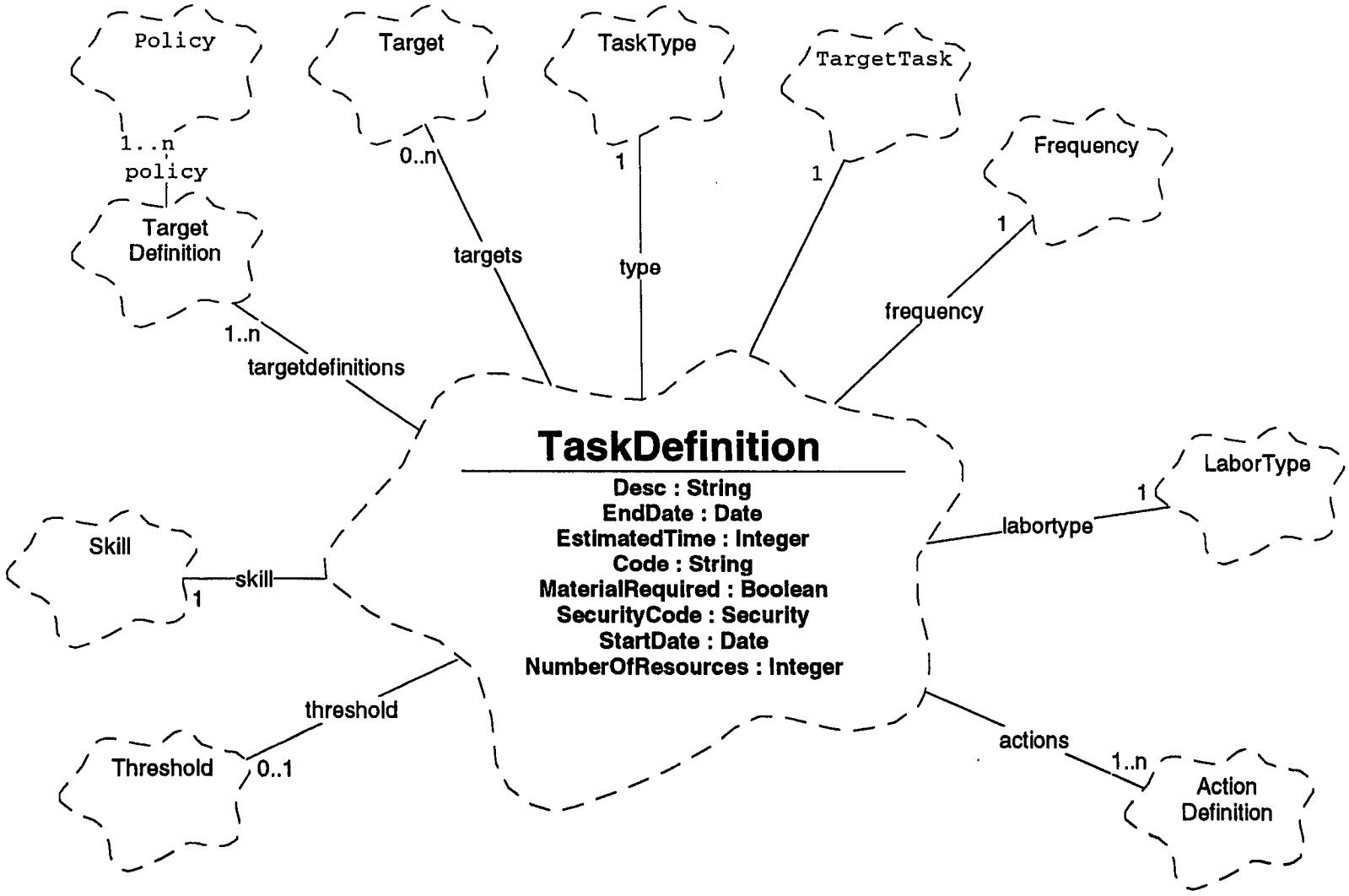
please refer to the following two pages

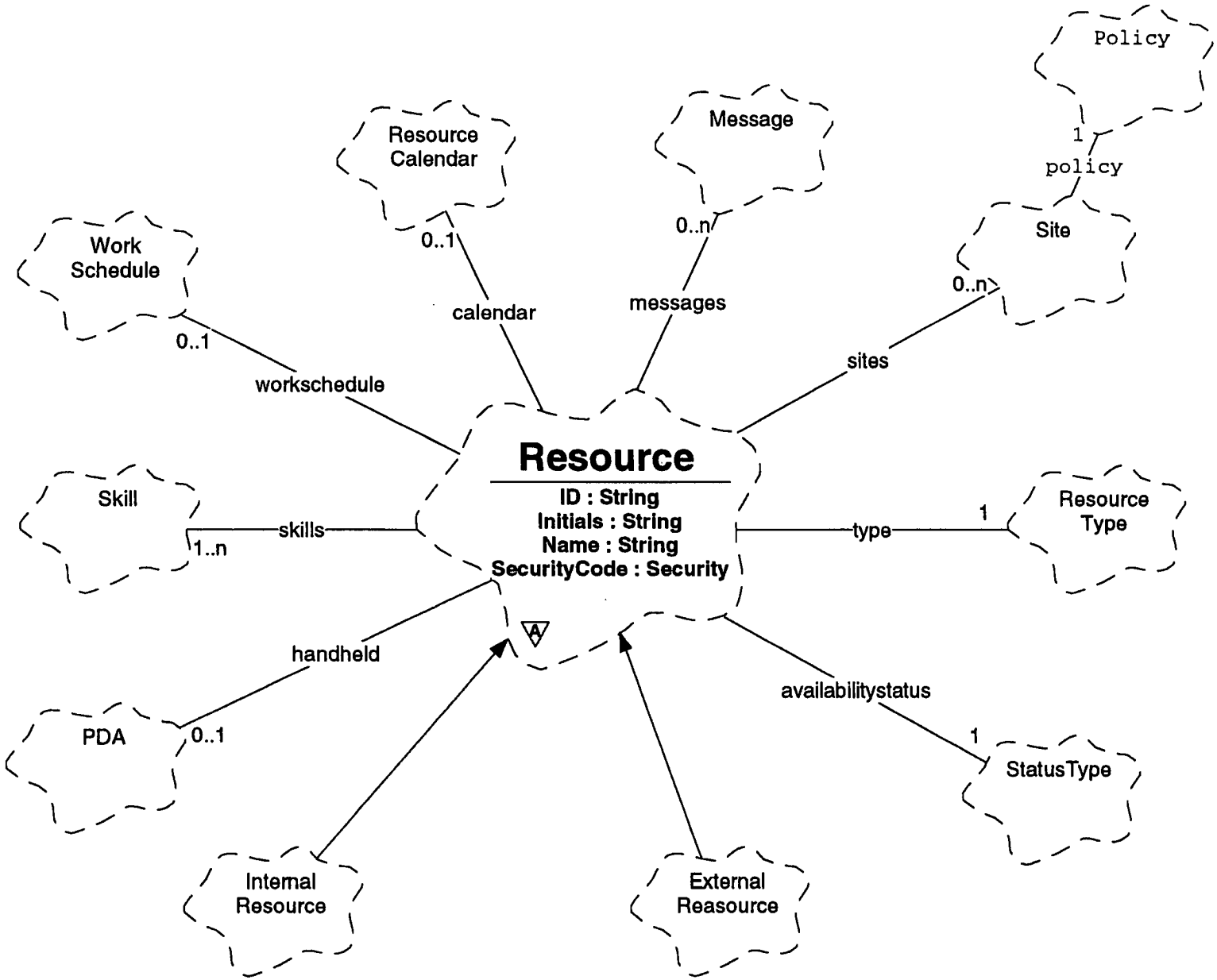
TARGETDEFINITION CLASS



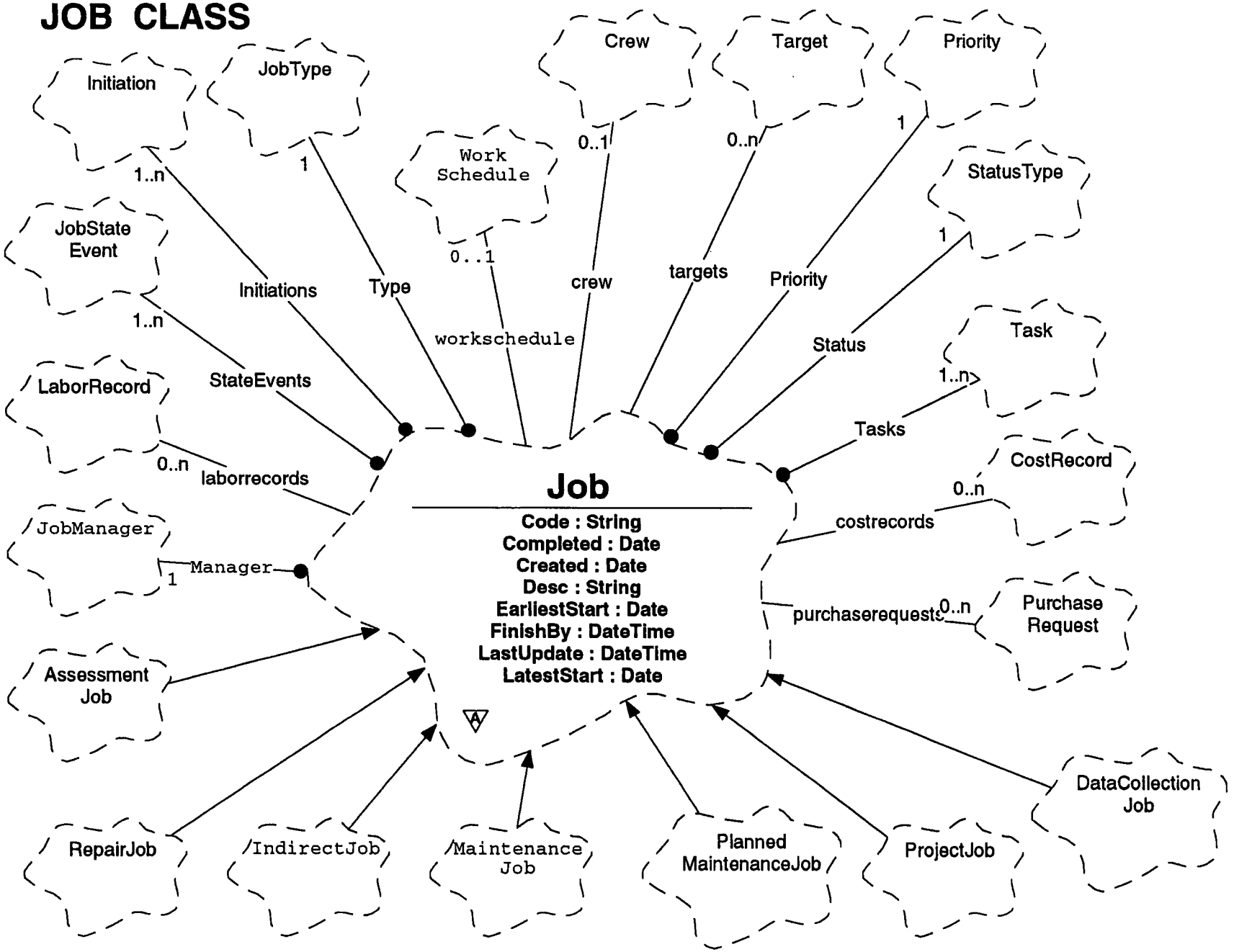
TASKDEFINITION CLASS



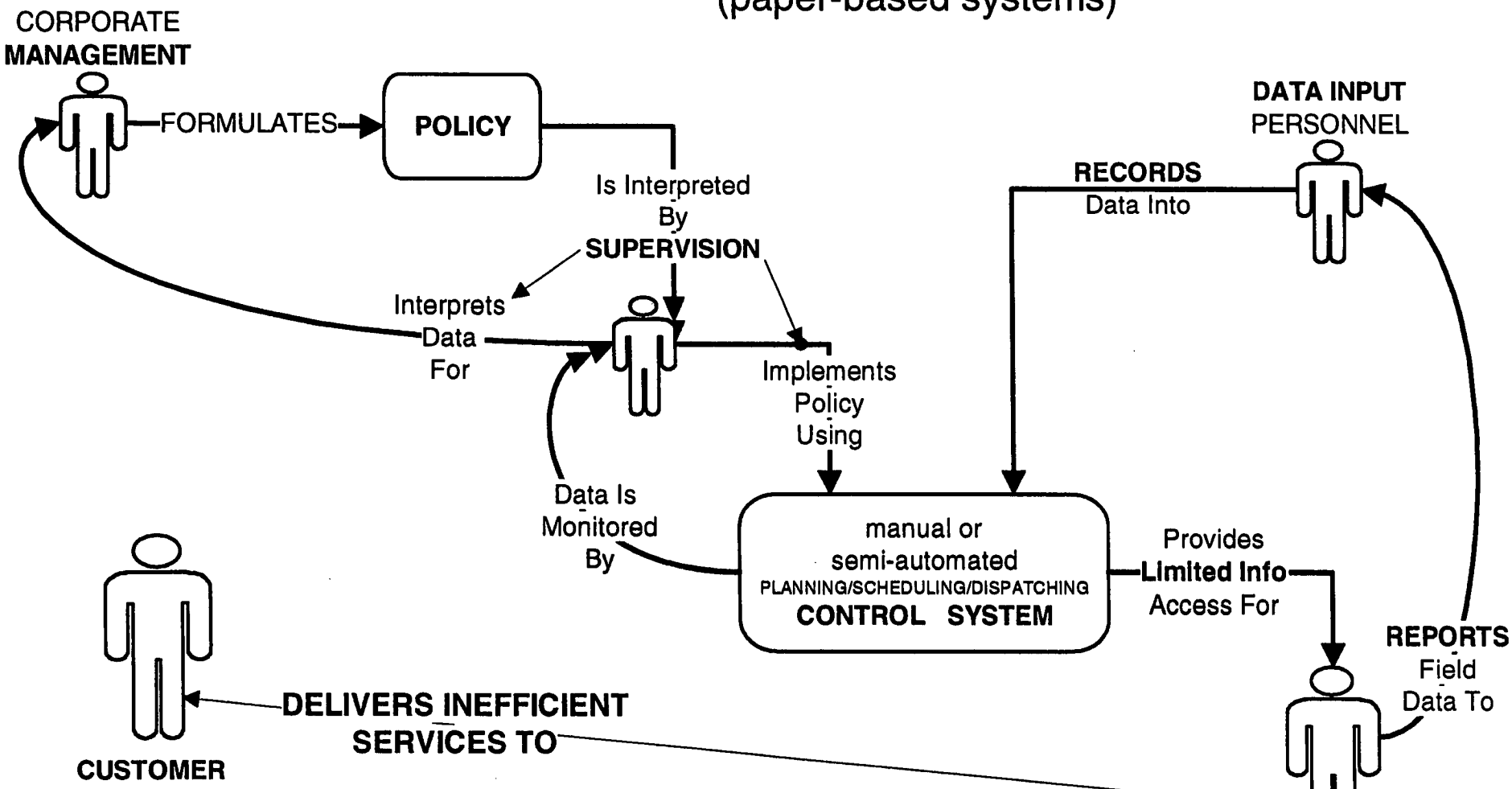
RESOURCE CLASS



JOB CLASS


Initiation
JobType
Crew
Target
Priority
Work Schedule
StatusType
JobState Event
LaborRecord
Task
CostRecord
JobManager
Purchase Request
Assessment Job
DataCollection Job
RepairJob
IndirectJob
Maintenance Job
Planned MaintenanceJob
ProjectJob
1..n
1
0..1
0..n
1
1..n
1
0..1
1..n
1..n
0..n
0..n
0..n
1
Initiations
Type
workschedule
crew
targets
Priority
Status
StateEvents
Tasks
laborrecords
costrecords
Manager
purchaserequests
Job
Code : String
Completed : Date
Created : Date
Desc : String
EarliestStart : Date
FinishBy : DateTime
LastUpdate : DateTime
LatestStart : Date

THE PROBLEM: Mobile Workflow Process
(paper-based systems)



DEFICIENCIES

Management: Has Limited Access to Out-of-Date Information, Little Control of the Mobile Worker, and Little Control of Customer Services

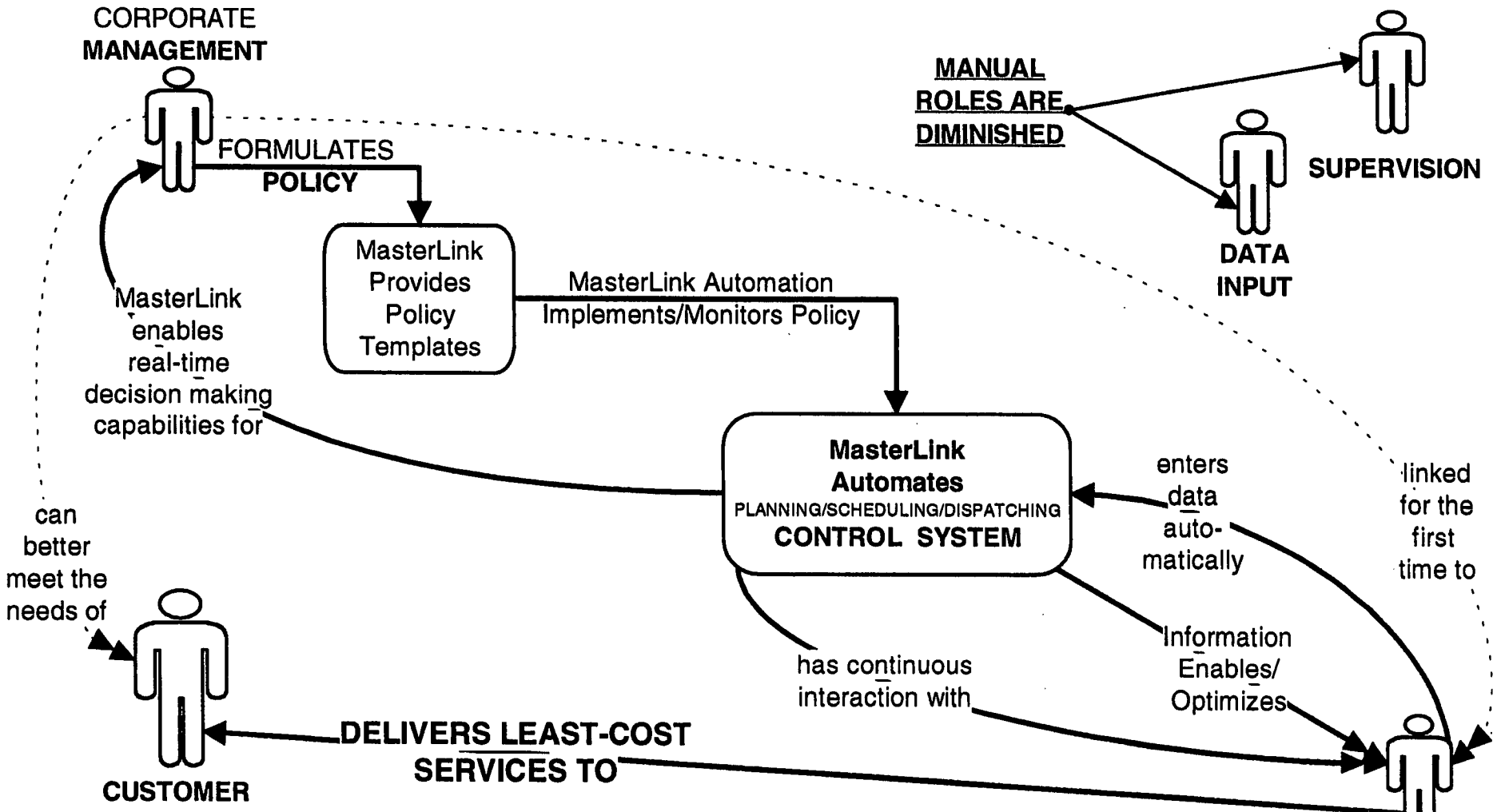
Supervision: Adds Limited Value, Only Coordinates the Activities of Others

Data Input : Does Not Add Value, Only Records the Activities of Others

Mobile Worker: No Jobsite Access to Advice, History, or Other Assistance

Customer: Receives Poor Service Delivered With Inconsistent Quality

THE SOLUTION: FAST-Enabled Facilities Process



BENEFITS

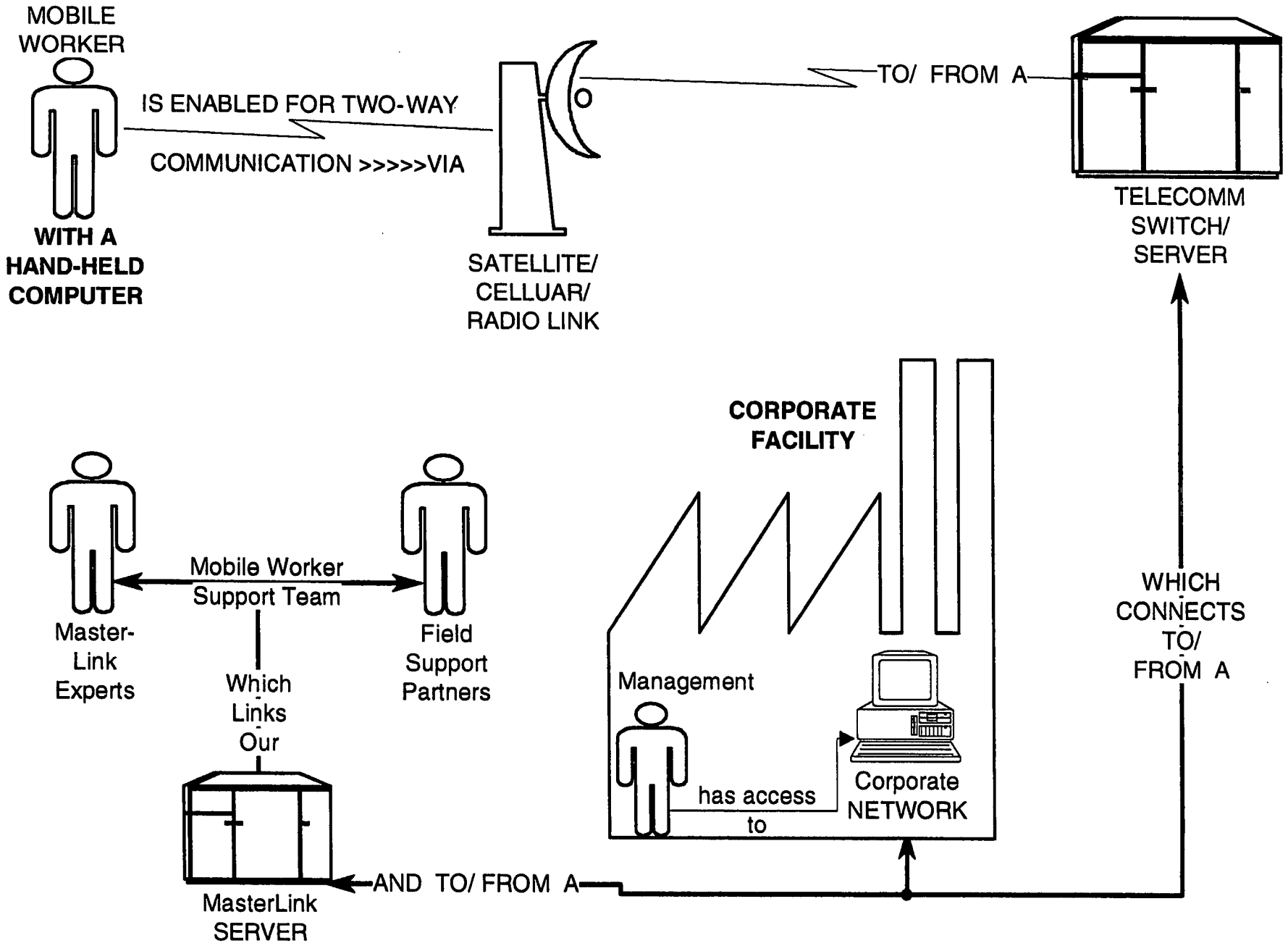
Management: Controls Policy Formulation and Implementation, is able to maximize the productivity of the Mobile Worker, and is able to insure Superior Customer Service at **Least Cost**

Customer: Receives Maximum use of Facilities and Equipment

Mobile Worker: Provided with All Relevant Information Required to Perform Work Assignments, at the Jobsite

Data Input: No longer needed.

THE IMPLEMENTATION: MasterLink Value Delivery Chain



MasterLink has many of the same goals as Maintenance & Diagnostics, LLC. The purpose of this document is to show how the two companies may develop synergy by mutually supporting each others objectives.

M&D Goal: **Establish and maintain strategic advantage for optimizing operation and maintenance practices through programmatic application of technologies.**

MasterLink Contribution:
Our long-term strategy for our Facilities Automation Simplification Technology (**FAST**) architecture is to enable the integration and coordination of all corporate information resources to improve productivity and profitability. **FAST** can be the **Master-Link** used to join various specialized chains of automation common to all businesses, such as the following:

* maintenance	* security	* life/safety
* environmental	* production	* administration
* engineering	* accounting	* purchasing
* sales	* customer service	* information systems

We believe that our ultimate success will be driven by our ability to become an indispensable source of work process management, and mobile workforce innovation for our customers.

M&D Goal: **Develop, optimize, and implement adaptive maintenance strategies, products, and services.**

MasterLink Contribution:
FAST creates a sustained linkage between strategy and the way work is done through the use of policy templates. These templates are the "rules book" that controls the interactions of all facilities/equipment requiring work, corporate resources performing work (internal & external), and the reporting measures required to monitor the results. This gives corporate management the ability to adjust their tactical operations on an as-needed basis. The result is continuous process improvement with the accompanying economic benefit of least-cost services delivery for our customers and partners.

M&D Goal: **Focus on improving skills and decision making of client front-line, hands-on workers.**

MasterLink Contribution:
FAST manages all activities at the task level by providing step-by-step instructions, situation assessment or diagnostic advice, historical data, even training information to the jobsite via a hand-held computer. The availability of these aides, with **FAST** governing the entire work order process, eliminates time-wasting activities and gives management unparalleled control of the work force. The result is a 30%, or more, increase in crew productivity.

M&D Goal: **Improve skills of managing change for managers and supervisors in applying new processes of technologies and applications.**

MasterLink Contribution:
Policy level, or operational level managers can easily use **FAST** to extract complex information that is presented in easy-to-understand format. **FAST** gives management the freedom to change operating policy as often as needed to adapt to changing conditions. Additionally, **FAST** will actually track the effectiveness of policy decisions made, manager-by-manager, to improve accountability.

Additional MasterLink Contributions:

* M&D can use **FAST** to become a more efficient service provider, enabling it to outsource more work for its customers.
* M&D can use **FAST** to express its corporate knowledge in a state-of-the-art information delivery system to help its customers remain competitive.
* M&D can participate, with equity, in MasterLink to develop and deploy a unique value-adding product with extraordinary market potential.